

The Nature of the Pons

The brain is the center of the nervous system and helps regulate all the systems and functions of the body. The brain interprets all internal and external signals and provides the correct reaction through the use of neurons, cells that make up the brain. Using the spinal cord and the nervous system, it relays messages back and forth to different parts of the body. The brain is connected to the spinal cord by the brain stem. All motor and sensory information passes from the brain to the rest of the body. The brain stem is composed of three main sections: the midbrain, the pons, and the medulla oblongata.

The pons is situated below the midbrain and above the medulla oblongata. The word pons literally means bridge which is apt as it acts as a connection between the cerebellum and other higher brain structures. One of the Pons's most important roles is sensory analysis. For example, when a sound first enters the ears it travels to the pons first before any other parts of the brain. However, the pons also relays signals regulating sleep, respiration, swallowing, bladder control, hearing, equilibrium, taste, eye movement, and even facial expressions.

The Symptoms of Injury to the Pons

Injury to the pons can affect all of the senses. Symptoms can include:

- Distortions of vision and hearing;
- Inability to feel pain;
- Abnormally low serotonin levels which may lead to feelings of depression, inability to focus and violence;
- Inability to sleep or wake;
- Loss of hearing, vision, taste, and touch;
- Double vision;

- Facial paralysis;
- Impaired coordination and movement;
- Slow pupil response;
- Loss of bladder control;
- Arousal dysfunction; and,
- Coma.

One of the most famous conditions that affect the pons is known as the central pontine myelinosis, which causes total body paralysis. This means that an individual may be aware of everything that is happening to them, but is unable to move except for their eye muscles.

The Causes and Treatment of Injury to the Pons

The most common causes of damage to the pons are auto accidents, violence against others, sports, and slip and falls. Damage can be done to the pons through either blunt force trauma (such as a club) or penetrating trauma (such as a bullet). Another common cause of injury to the pons is hypoxia, or prolonged lack of oxygen to the brain, which can be caused by drowning or choking. Harmful chemicals and toxins can also cause a tumor to grow on the brainstem.

Initial diagnosis of an injury to the pons will be done with an MRI scan. CT scans and x-rays might also be conducted in order to diagnose any damage to the skull, including dents or any bone fragments or splintering. Surgery will be required in order to remove possible bones fragments from brain tissue, stop bleeding, remove any pools of blood, or any number of other complications from trauma. However, just as each person is unique so is each brain and each brain injury.

Although the pons may be physically mended, the brain stem often does not regain full functionality. If it is damaged recovery may often require a multi-disciplinary team that can

include:

- A neuropsychologist, skilled in knowing all the specific processes and behaviors of the brain and able to assess the level of mental competence a brain damaged patient still has;
- A speech consult, skilled in communication rehabilitation will help the patient with their skills of expression, comprehension and communication;
- An occupational therapist, skilled in helping individual's regain the ability to do small meaningful tasks; and,
- A psychiatrist, skilled in helping individuals deal with emotional distress like depression.

The costs associated with injuries to the pons can be extensive. In addition to the retention of many specialists, as well as the costs of surgery and hospital bills, individuals may need many years of rehabilitative care. Those who do recover may not be able to work for at least 6 months to a year and many will lose their jobs due to their handicap. If you or a family member is suffering from an injury to the pons through the fault of someone else please contact the Law Offices of Kevin Dolley by phone at (314) 645-4100 or by e-mail at Kevin@dolleylaw.com . All legal consultations are held strictly confidential.

No Recovery, No Fee

The Law Offices of Kevin J. Dolley takes injury cases on a contingency basis. This means you will only pay attorney's fees if we obtain compensation for you. For a free consultation with a lawyer, call us at (314) 645-4100 or [contact us](#) online.